

**DAVID E. RICE**

**Natural Resources Protection Act**

**Removal of Special Condition #5 – South Bristol**

**SUPPLEMENTAL EVIDENCE FROM DMR**

- Letter dated July 27, 2010 to A. Fisk, Bureau Director, DEP from D. Etnier, Deputy Commissioner, DMR
- Letter dated September 16, 2010 to B. Callahan, Project Manager, DEP from L. Mercer, Bureau Director, DMR



STATE OF MAINE  
DEPARTMENT OF  
MARINE RESOURCES  
21 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0021

JOHN ELIAS BALDACCI  
GOVERNOR

GEORGE D. LAPOINTE  
COMMISSIONER

July 27, 2010

Andrew Fisk  
Bureau of Land and Water Quality  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333-0017

RE: David E. Rice, Commercial pier/lobster trap storage, South Bristol

Dear Andy,

Last week the Department of Marine Resources (DMR) received the July 2010 Maine Department of Environmental Protection (DEP) denial of Mr. Rice's request for removal of Special Condition #5 ("No trap storage will be permitted on the permanent pier.") from the Board of Environmental Protection's Order #L-23698-4E-A-Z. Upon review of the project, the request of the applicant and the subsequent denial by DEP I must inform you that this agency erred in the comments it sent Beth Callahan of your staff in our memo dated August 31, 2009 regarding the request for seasonal trap storage on the recently constructed permanent pier.

Specifically: this agency did not fully evaluate the following two points upon which we based our August 2009 comments recommending that the permit condition prohibiting storage of traps be retained:

- 1) DMR was not fully aware and therefore did not properly evaluate the seasonal time frame that was being proposed for trap storage. It is now apparent in the text of DEP's July denial that the primary time during which the traps will be stored on the pier will be December through March. DMR does not believe this will pose a consequential impact due to shading of nearby marine vegetation. In addition, and in a larger context, this agency feels that the entire issue of shading caused by the short or long term storage of lobster traps on piers needs a thorough evaluation. Toward that end we believe it is important that that we meet with you and your staff directly to discuss what short term or cumulative impacts would occur from lobster trap shading at various times of year.
- 2) DMR was not fully aware and therefore did not properly evaluate the true viability of the alternative sites for trap storage proposed by DEP. It is now apparent in the text of DEP's July denial that if the South Bristol pier itself cannot be utilized for the purpose of trap storage the applicant will need to store his 600 traps in at least three separate locations. DMR is concerned that the use of multiple alternative sites may not constitute a viable option and also that the three sites proposed may not be suitable individually or combined.



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For the above stated reasons this agency feels our August 31<sup>st</sup>, 2009 comments to DEP Project Manager Beth Callahan are invalid. At this time we are unaware of any criteria from our perspective that would justify the continued imposition of the ban on trap storage as contemplated by Special Condition #5. Should there be a means for DEP to reopen consideration of the request by the applicant to eliminate Special Condition #5 we would respectfully request that that occur as soon as feasible. It is our sincere hope that the applicant not be compelled to file an appeal to the Board of Environmental Protection or Maine's Superior Court given the considerable expense such an appeal would involve and given that DEP's July 2010 denial was partially based on insufficient technical review provided by DMR regarding the issued of trap storage.

Thank you for your attention to this matter and I sincerely regret any inconvenience this notification may cause you and your staff.

Sincerely,

David Etnier  
Deputy Commissioner

Cc: George Lapointe, Commissioner DMR  
Linda Mercer, DMR  
Brian Swan, DMR  
James Cassida, DEP  
Beth Callahan, DEP



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COMMISSIONER

September 16, 2010

Beth Callahan  
Department of Environmental Protection  
#17 State House Station  
Augusta, Maine 04333

Dear Beth,

The Department of Marine Resources (DMR) recently reviewed its comments made with regard to the David E. Rice Natural Resources Protection Act pier proposal application, South Bristol (L-23697-4E-a-N) (September 6, 2007). DMR's comments were the standard comments made on pier applications: "Shading and subsequent loss of marine vegetation would likely result." DMR made additional comments, August 31, 2009, on a request by this applicant to DEP to remove or revise a condition on his current permit that prohibits trap storage on his pier (L-23698-4E-B-N). Those comments stated, "Storage of traps would contribute to shading of marine vegetation..." Further, "Upland storage of traps, where possible, is preferred. In this case that appears to be a viable option."

On July 27, 2010, DMR provided comments with regard to the denial of Mr. Rice's request for removal of Special Condition #5 ("No trap storage will be permitted on the permanent pier.") stating: 1) "DMR was not fully aware and therefore did not properly evaluate the seasonal time frame that was being proposed for trap storage;" and 2) "DMR was not fully aware and therefore did not properly evaluate the true viability of the alternatives sites for trap storage proposed by DEP."

On September 2, 2010, DMR personnel including Deputy Commissioner David Etnier, Bureau of Resource Management Director Linda Mercer, and Environmental Permit Reviewer Brian Swan visited the David Rice Pier in South Bristol at low tide. Also present were David Rice, Chester Rice, and Joseph LeBlanc. We observed that rockweeds were abundant along the shoreline and under the pier. In addition to the shadow cast by the pier, there was considerable shading of rockweed on the northwest shore from shoreline vegetation including large oak trees.

There is little in the scientific literature with regard to the impacts of shading on rockweeds from piers or traps stored on piers. While piers do create a shadow, the impact on rockweeds is unknown. Studies on the environmental impacts of docks and piers on vegetation have largely been focused on impacts to seagrass (e.g., eelgrass, *Zostera marina*) and wetlands vegetation (e.g., *Spartina alterniflora*). It is well documented that shading can have significant impacts on the health and productivity of these plants (Kelty and Bliven 2003). Recommendations on pier siting

and construction over vegetation are based on impacts to seagrass bed and marsh vegetation. For example, a north-south rather than an east-west orientation can minimize shading impacts in some regions of the Northeast (<http://coastal.noaa.gov/news/feature/0503.html>)

A thorough review of the ecology of rockweeds by Chapman (1995) revealed that with regard to light, "Fucoids seem to be even more sensitive to light quality than to light quantity. They can survive long periods in the dark and conversely, they have a protection mechanism against damage from high light levels." It has also been shown that fucoids are able to adapt their total photosynthetic pigment concentration and pigment ratios according to the amount of light received (Ramus et al. 1977). The result of this is that shade-adapted plants have higher photosynthetic rates than light-adapted plants.

Maximum growth of rockweeds occurs in the fall and spring, with maximum weight occurring in the late spring and early summer (Mathieson et al. 1976). Rockweed scientists who were consulted for their opinion on the effects of shading on rockweed growth offered the following comments:

Dr. Raul Ugarte, a rockweed scientist in Canada was asked to provide his expert opinion on the effects of lobster traps on shading and he stated, "From December to March rockweed growth is negligible or none so any shading by the traps won't affect the seaweed anyways."

Observations by Dr. Robert Vadas (University of Maine) suggest, "there might be an effect on growth in the spring and summer but probably little effects in fall and winter. Growth is lower normally in the fall and winter as the receptacles are enlarging and vegetative growth is reduced. Our earlier work (Vadas and Wright 1986) indicates that smaller, linear plants, can live in the understory for years (where they receive reduced light). When the canopy is disturbed, they can become the new canopy shoots. These are mostly referring to smaller patches of seaweed. For piers, the size and structure will play a larger or smaller role depending on the shade cast by the pier. Piers can also have a positive affect by reducing water flow and allowing zygotes to settle and survive at higher rates (Vadas et al. 1990)."

DMR fully recognizes the value of rockweeds as habitat, as well as a valued marine resource. However, it should be noted that the intertidal zone in which rockweeds live is highly impacted by physical stresses such as waves and ice scouring that frequently remove large quantities of algae naturally. Seaweed harvesting is also allowed in Maine with regulations on cutting height and limits in some areas. Combined landings of seaweed were 11.5 million pounds in 2009, with rockweed comprising the bulk of these landings.

In summary, there is no clear evidence to support shading impacts from piers on rockweed, particularly those constructed in a north-south alignment, or from the storage of traps on the piers, particularly during winter.

The second purpose of this agency's September second site visit to South Bristol was to view the three alternative trap storage locations that were considered in the denial of Mr. Rice's request to remove Special Condition #5. Based on our review of each location it is DMR's opinion that none of the three alone, or any combination of the three, constitutes practicable alternatives for the purposes of lobster trap storage. Specifically:

1) The upland area located near the project site is largely occupied by a residential dwelling, a sizable leach field and several large shade trees. In addition it is apparent that a drinking water well has fairly recently been installed on the site. The portion of the upland area that is not already occupied by the above is unsuitable for storing lobster traps for the following primary reasons:

A) A large portion of this relatively small parcel of land appears heavily shaded during most, if not all, of the year. Lobster traps are best stored in an area with a reasonable amount of sun in order to sufficiently dry and to allow proper maintenance in the spring prior to setting.

B) It is apparent that much of the available land receives significant fresh water runoff from the driveway and fields which are up from it and therefore, combined with the shade caused by the trees, remains wet for much of the time. Traps stored in such a location would deteriorate due to the wetness and performing maintenance in the spring would be difficult at best.

C) Any traps stored in this general area would kill the lawn that lies underneath them which would not seem appropriate given the residential dwelling located there.

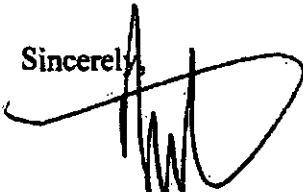
2) The mooring and float located at "The Gut" is inadequate for any trap storage beyond a handful (ten +/-) stored on a temporary basis to allow them to dry. It is very small in size – approximately 8' by 10' – and would be unsuitable for anything more than the most temporary of storage at any time of year. Seasonal storage (winter/spring) would be out of the question given the exposure to wind and wave action. In addition, there is no ability to perform needed maintenance on any traps that are left there.

3) The existing pier at Jones Point has deteriorated beyond any ability for its commercial or recreational use. Even a brief examination of the condition of the pilings which support it, as well as the deck structure itself, reveals that this entire pier is in need of replacement and is unsafe for any purpose including walking upon at this time. Even if it were in good repair its location is such that its use for storing traps is not good given the tidal nature of the location and the encroaching ledges; the combination of which make access by boat either impossible at low tides or somewhat risky at high tides. In either event Mr. Rice's newly constructed commercial pier in Clarks Cove provides superior access by boat at all tides.

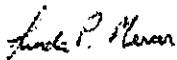
Regarding the viability of alternative sites to be used for lobster trap storage this Department feels it is important to state that we do not consider it appropriate to view the use of a combination of multiple remote sites a viable alternative for the purposes of trap storage; especially when there exists a recently constructed commercial pier that provides both sufficient space and good access for vessels at virtually all tides.

We hope that the additional scrutiny and comments DMR have provided you will provide useful information to follow up on our letter to Maine Department of Environmental Protection dated July 27<sup>th</sup>, 2010. Should you have any questions or desire any additional information please feel free to contact either of us.

Sincerely,



David Etnier  
Deputy Commissioner



Linda Mercer  
Director, Bureau of Resource Management

Cc: George Lapointe, DMR  
Andy Fisk, DEP  
James Cassida, DEP

Attachment 1.

Chapman, A. R. O. 1995. Functional ecology of furoid algae: twenty-three years of progress. *Phycologia* 34 (1): 1-32.

Kelty, R. and S. Bliven 2003: Environmental and Aesthetic Impacts of Small Docks and Piers. Workshop report: Developing a science-based decision support tool for small dock management, Phase 1: Status of the Science. NOAA Coastal Ocean Program Decision Analysis Series No. 22. 62p.

Mathieson, A.C., J.W. Shipman, J.R. O'Shea, and R.C. Hasevlat. 1976. Seasonal growth and reproduction of estuarine furoid algae in New England. *J. Exp. Mar. Biol. Ecol.* 25:273-284.

Ramus, J. F. Lemons, and C. Zimmerman. 1977. Adaptation of light-harvesting pigments to downwelling light and the consequent photosynthetic performance of the eulittoral rockweeds *Ascophyllum nodosum* and *Fucus vesiculosus*. *Marine Biology* 42: 294-303.

Vadas, R.L. and W.A. Wright. 1986. Recruitment, growth, and management of *Ascophyllum nodosum*. In: Westermeier, R. (ed). *Actas Segundo Congreso Nacional Sobre ALgas Marinas Chilensas*. Universidad Austral de Chile, Valdivia. Pp 101-113.

Vadas, R.L., W.A. Wright, and S.L. Miller. 1990. Recruitment of *Ascophyllum nodosum*: wave action as a source of mortality. *Mar. Ecol. Prog. Ser.* 61: 263-272.